

# Handling & Processing Section

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## RELOCATIONS IN THE FLORIDA FRESH FRUIT INDUSTRY: 1978-2003

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**Abstract.** During the last century the Florida citrus industry has experienced an accelerating relocation southward. This has been due, in the main, to the effects of weather and urbanization. While production areas have been relocated rather rapidly, merely planting further south as groves are lost in the northern areas, fresh fruit packing facilities are less portable. This has resulted in the necessity of hauling fruit further distances to the packinghouse. At the same time there has been a gradual decline in the amount of fresh fruit packed, this has resulted in the closing of many packinghouses and changing use patterns in those remaining.

Since colonial days, when citrus flourished in South Carolina and Georgia, the citrus industry of the eastern United States has inexorably moved southward. Until the twentieth century the principal reason for this was weather related. The impact freeze of 1835 and subsequent freezes have been a major factor in moving the citrus industry south (Attaway, 1997). During the twentieth century the additional factor of population growth has contributed to this movement.

During the 25 year period from 1978 to 2003 the population of Florida has increased over 88% (Table 1). The greatest population increases have been in those areas that were strong citrus growing and packing areas (Anonymous, 2004). This can be attributed, in part, to the fact that those places where citrus grows well are also desirable for human occupation. With increased population the increased value of land often makes it uneconomical to produce citrus.

As long as a grove is productive, it may be kept in production but any factor that may diminish its productivity will influence the owner to sell for residential or commercial development. Freezes and Citrus canker have greatly contributed to the abandonment of some groves. Under current regulations a single infected tree calls for the destruction of all trees in a 1900 ft radius around that tree. This is equivalent to just over 260 acres (Schubert and Sun, 2003). Few smaller groves can suffer such a loss and remain tenable.

In an earlier examination of relocations in the Florida citrus industry, traditionally citrus producing areas of Florida was divided into three regions, northern, southern and east

coast counties (Hall and Bowers, 1989). For purposes of consistency, the same divisions are used here (Fig. 1). The counties concerned are listed by name in Table 2.

Two indicators of this southward relocation of Florida's citrus industry are the location of the groves and where the fruit is packed. Table 3 reports figures from citrus census of 1978 and that of 2002 (Anonymous, 1978a, 2002), the latest year available. Over that time there has been little change in the total acres in production, while there has been more than a 50% loss in producing acres in the northern counties, there has been a more than doubling of producing acres in the southern counties. Over this same period production in the east coast counties has remained relatively unchanged. The large decrease reflected in the 1988 figures is entirely due to a more than 50% loss in producing acreage in the northern counties. Two factors contribute to this, population increase and several major freezes in 1981, 1982, 1983, and 1985 (Attaway, 1997).

With this southward relocation of citrus production there has also been a much slower relocation in the packing of fresh citrus fruit. The reports of the Florida Department of Agriculture (Anonymous, 1978b, 1983, 1988, 1993, 1998 and 2003)

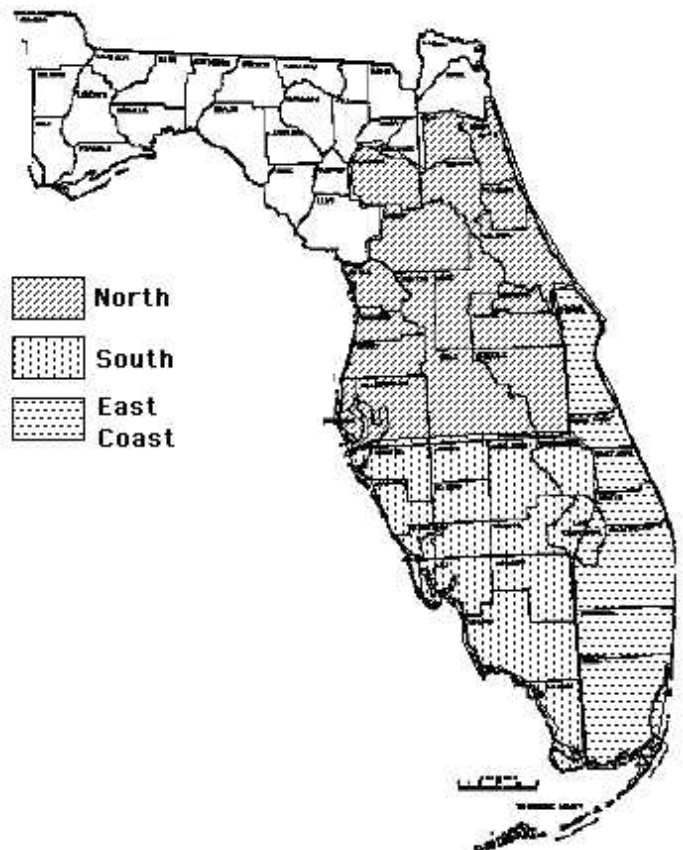


Fig. 1. Florida growing and packing areas.

Table 1. Population changes of selected Florida regions—in thousands.

Area	1978	2003	% Change
North	3,712	6,518	+75.6
South	740	1,972	+166.2
East Coast	1,884	3,900	+107.0
Total	9,061	17,072	+88.4

Table 2. Listing of counties in the 3 citrus areas.

Northern	Southern	East Coast
Alachua	Charlotte	Brevard
Citrus	Collier	Broward
Duval <sup>2</sup>	DeSota	Dade
Flagler <sup>2</sup>	Glades	Indian River
Hernando	Hardee	Martin
Hillsborough	Hendry	Palm Beach
Lake	Highlands	St. Lucie
Marion	Lee	
Orange	Manatee	
Osceola	Okechobee	
Pasco	Sarasota	
Pinellas		
Polk		
Putnam		
Saint Johns <sup>2</sup>		
Seminole		
Sumter <sup>2</sup>		
Volusia		

<sup>2</sup>Counties not reporting commercial citrus in 2002.

are summarized in Table 4. From these reports it is notable that while the amount of fruit packed in various areas has shifted from north to south, the rate of change is much slower than shift of citrus production. A partial explanation of this phenomenon is that a new grove may be into production in as little as 4 years after planting. Thus if a grove is removed from production due to freeze, canker or development, it can be readily replaced in a relatively short time. On the other hand a packing facility represents a major investment in buildings, machinery and services. Also since a packing facility will operate on a daily basis during the citrus packing season, it also needs a dependable source of daily labor. Therefore, established packinghouses are seldom relocated until forced by necessity.

It is also apparent from Table 4 that there has been a steady decline in portion of the total citrus crop packed in the northern area while there has been an increase in the southern and east coast areas. A closer analysis of the northern area reveals a dramatic shift within the area. In Table 5 two counties within the northern area are compared. These two, Lake and Polk, are immediately north (Lake) and south (Polk) of

Table 3. Commercial citrus acreage for selected years, by area in thousands.

Area	1978	1988	2002	% Change
North	425	192	180	-57.6
South	200	277	409	+104.5
East Coast	206	229	208	+1.0
Total	831	698	797	-4.1

Table 4. Portion (%) of total crop packed by year and area.

Year	North	South	East Coast
1978	59.67	4.44	35.89
1983	56.89	2.54	40.56
1988	45.94	4.36	49.70
1933	40.31	7.78	49.91
1998	37.63	7.19	54.43
2003	37.05	7.15	55.80

Table 5. Comparison of citrus packing between Lake and Polk counties.

Year	Polk County		Lake County	
	% of State	% of North	% of State	% of North
1978	30.60	59.67	11.73	19.65
1983	26.49	56.89	17.43	30.48
1988	26.37	57.39	12.35	26.89
1993	27.32	67.98	6.15	15.26
1998	24.44	64.88	6.03	16.01
2003	24.70	66.70	2.78	7.49

each other. While both Lake and Polk counties have decreased citrus packing over the period concerned, Lake county has dramatically decreased while Polk's share of the state's total has not decreased as dramatically and its share of the northern area has increased.

Much of this shift can be explained by the devastating effect of the freezes of the 1980s (Attaway, 1997) and population growth. During the period 1980-2000 the population of Lake county increased by 100%, exceeding the State average, while Polk county's population increase was a little under 50%, much less than the State average (Anonymous, 2004).

These trends indicate that Florida's citrus industry is likely to continue to move south into less developed areas. Marginal land, formerly considered unsuitable for citrus production, may have to be developed. Without packing facility relocation there will be longer hauling distances with the quality problems associated with these. At the same time growing citrus further south will mean differing micro-climate considerations (Canclon, 2003) which can mean additional postharvest problems.

Coupled with other pressures, increased urbanization can mean greater difficulty in acquiring the low cost labor that agriculture depends upon. In the future packers will be faced with the necessity of relocating, moving into greater mechanization (Hall, 2003) or both.

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